

IMPLEMENTING ARRANGEMENT
BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA
AND
THE GOVERNMENT OF THE FEDERATIVE REPUBLIC OF BRAZIL
FOR THE BIOLOGICAL CONTROL OF THE *Aedes Aegypti* MOSQUITO

The Government of the United States of America and the Government of the Federative Republic of Brazil (hereafter referred to as "Parties"),

Realizing the existence of broad bilateral interests with reference to the promotion of public and animal health, and to the prevention and control of mosquito-borne diseases;

Desiring to foster greater cooperation in the area of public and animal health between both countries; and

Realizing the importance of working together with a view to address the problem of biological control of the *Aedes aegypti* mosquito.

The Parties have agreed as follows:

ARTICLE I

PURPOSE AND SCOPE OF COOPERATION

1. The purpose of this Implementing Arrangement is the development of a joint research project of mutual interest on non chemical methods for the control of *Aedes aegypti* mosquito, including:
 - a. biological control; and
 - b. new technologies for attraction and trapping of adult mosquitoes
2. Cooperation will take place in accordance with the terms of this Implementing Arrangement, which provides a framework to encourage joint research activities to promote improvements in public and animal health, subject to the laws and regulations of each country.
3. Cooperation shall respect those laws concerning human safety and environment protection in each Parties' territories.
4. Activities, where possible, should be coordinated with, or be supportive of the activities and goals of international health bodies, including the World Health Organization and the Pan American Health Organization.

ARTICLE II IMPLEMENTING AUTHORITIES

1. This Implementing Arrangement is subject to and governed by the Agreement between the United States of America and the Federative Republic of Brazil Relating to Cooperating in Science and Technology, signed on February 6, 1984, as amended and extended ("the Agreement"). The Parties have agreed to conclude the following Implementing Arrangement to cooperate in the control of the *Aedes aegypti* mosquito.
2. The Implementing Authorities of this Implementing Arrangement are, for the United States of America, the U.S. Department of Agriculture (USDA) and, for the Federative Republic of Brazil, the Ministries of Health and of Science and Technology.

ARTICLE III METHODS OF COOPERATION

Cooperation under this Implementing Arrangement shall consist of:

- a. Exchange of scientific and technological information, identified as relevant to implementation of the joint research project;
- b. Training activities related to quarantine procedures, maintenance of *Edhazardia aedis*, the living organism that will fight the *Aedes aegypti* mosquito, and other activities deemed necessary to accomplish the expected results;
- c. Development of databases on mosquito seasonal abundance and activity, including the development of techniques, procedures and schedules for long-term monitoring of mosquito populations.
- d. Identification of target sites in Brazil for release of *Edhazardia aedis* and survey of these sites for the presence of endemic pathogens and parasites of *Aedes aegypti*;
- e. Release of *Edhazardia aedis* into the mosquito population at targeted sites;
- f. Monitoring of infection rates in the mosquito population, dispersal of the pathogen through the mosquito population and changes in mosquito population density through time, preferably by comparison with untreated sites;
- g. Augmentative periodic releases, as deemed necessary in the first year of cooperation to achieve the desired level of infection in the mosquito population;
- h. Monitoring of infection levels of the pathogen in the mosquito population in the second and succeeding years in which this Implementing Arrangement is in force;
- i. Training of post graduate students in areas related to the scope of this cooperation.

2. Target sites for release of the pathogen are most likely to be urban and suburban areas infested with *Aedes aegypti* and without active dengue transmission.
3. Additional releases of the pathogen may be done if necessary, at the beginning of, and during the mosquito season for the first five (5) years of the project.

ARTICLE IV ORGANIZATION OF COOPERATION

1. The United States Department of Agriculture designates as coordinator for joint research under this Implementing Arrangement, its Research Leader of the Mosquito and Fly Research Unit, Gainesville, Florida.
2. The Ministry of Health of Brazil designates the Executive Secretary of the *Aedes aegypti* Eradication Program as coordinator for joint research under this Implementing Arrangement.
3. The coordinators shall also determine the institutions on both sides for the execution of the project and the extent of their participation.
4. The Parties shall establish a Steering Committee composed of the coordinators and representatives of the Implementing Authorities to assess the development of cooperation under this Implementing Arrangement. Representatives of other governmental sectors of both Parties may be invited to participate as observers.
5. The Steering Committee shall meet at least once a year to evaluate research progress and review work plans for the next research period.

ARTICLE V OBLIGATIONS OF THE PARTIES

1. The U.S. Party agrees to:
 - a. Provide information as needed for the import of *Edhazardia aedis* into Brazilian territory, in compliance with Brazilian law.
 - b. Provide the biological control agent as mutually agreed upon;
 - c. Provide training for Brazilian personnel in all procedures and techniques deemed necessary for research development, including but not limited to:
 - 1) quarantine management;
 - 2) maintenance of *Edhazardia aedis*;
 - 3) mass-production of the pathogen;
 - 4) release of the pathogen into mosquito populations;
 - 5) monitoring of infection rates among mosquito populations.

- d. Provide guidance and consult on activities related to maintenance of the biological control agent in Brazil;
- e. Collaborate in the selection of target sites for release of the pathogen in Brazil;
- f. Collaborate in development of databases on mosquito seasonal abundance and activity at target sites;
- g. Provide the necessary facilities and services for implementation of activities on U.S. territory, including training of Brazilian personnel;
- h. Collaborate to implement procedures and techniques for the identification of *Edhazardia aedis* infection in mosquito populations; and
- i. Collaborate in the exchange of data and progress reports for the joint research project and in other activities that may facilitate its progress.

2. The Brazilian Party agrees to:

- a. Collaborate in the exchange of data and progress reports for the joint research project and in other activities that may facilitate its progress.
- b. Obtain permission, subject to national laws and regulations, to import *Edhazardia aedis* into Brazilian territory;
- c. Provide adequate facilities and services in Brazil for joint research activities, mainly those needed for quarantine, mass production and release of the pathogen;
- d. Assign and provide Brazilian personnel to be involved in research and training activities;
- e. Select target sites in Brazil for release of *Edhazardia aedis*;
- f. Collaborate for the development of databases on mosquito seasonal abundance and activity;
- g. Make the necessary releases for the pathogen into mosquito populations at target sites; and
- h. Monitor infection rates in mosquito populations at target sites.

ARTICLE VI OPERATIONAL ASPECTS

Both Parties agree that:

1. Research work shall be planned and executed jointly by the Implementing Authorities;
2. The Brazilian party shall present a draft of a General Work Plan, within one (1) month after signature of this Implementing Arrangement to the U.S. party. Once its content has been mutually agreed upon, this General Work Plan shall be detailed and, whenever necessary, reviewed to be presented for analysis by the Steering Committee; and
3. A complete report of the results of research work as well as annual progress reports shall be prepared by the coordinators to be submitted to the Steering Committee for assessment.

ARTICLE VII INFORMATION AND PUBLICATION

All scientific and technical information arising out of cooperation established under this Implementing Arrangement may be published or made available by the Implementing Authorities, jointly or individually, after consultation between the coordinators about the substance of the material to be disclosed.

2. To the extent permitted by the respective laws of each country, no confidential information exchanged pursuant to or arising out of the activities under this Implementing Arrangement, meaning information requiring protection in the interests of national defense or foreign relations of either country or information that can affect the preservation of invention rights, shall be published or made publicly available.
3. All information to be released concerning work carried out under this Implementing Arrangement shall acknowledge contributions of each Party to the research effort.

ARTICLE VIII INTELLECTUAL PROPERTY RIGHTS AND SECURITY OBLIGATIONS

Intellectual Property Rights and Security Obligations shall be governed by the provisions of Annexes I and II of the Agreement between the Federative Republic of Brazil and the United States of America Relating to Cooperation in Science and Technology, of February 6, 1984, as amended and extended.

ARTICLE IX
FINANCING

1. Each Party shall be responsible for the costs of its own participation, including appropriate kinds of insurance, subject to the availability of financial resources, except in case of written agreement setting forth other conditions.
2. Expenses related to the activities to be developed under this Implementing Arrangement shall be met in conformity with the already mentioned working plans and must be in accord with the rules and regulations that may apply in each Country.

ARTICLE X
ENTRY INTO FORCE, TERMINATION AND AMENDMENT

This Implementing Arrangement shall enter into force upon its signature and shall remain in force for five (5) years. It may be extended or amended by mutual agreement through the exchange of diplomatic notes.

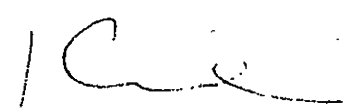
2. This Implementing Arrangement may be terminated at any time by either Party coming into effect ninety (90) days after receipt of the pertinent diplomatic note.

3. In the event of termination, the validity and duration of ongoing activities shall not be affected.


Done at the U.S. Department of Agriculture, Washington, DC, in duplicate, on February 29, 2000.

FOR THE GOVERNMENT OF
THE
FEDERATIVE REPUBLIC OF BRAZIL:

FOR THE GOVERNMENT OF
THE
UNITED STATES OF AMERICA:



JOSE SERRA
Minister of Health



I. MILEY GONZALEZ
Under Secretary
U.S. Department of Agriculture